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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,935	11/29/2000	George G. Robertson	MS1-623US	2819

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EXAMINER	
NGUYEN, CAO H	

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/728,935	Robertson et al.
Examiner	**Art Unit**
Cao (Kevin) Nguyen	2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *filed on 10/17/03*.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *21* is/are allowed.

6) ☒ Claim(s) *1-20 and 22-41* is/are rejected.

7) ☒ Claim(s) *4, 8, 9, 29, and 40* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hearst (US Patent No. 6,223,145 B1) in view of Ng et al. (US Patent No. 6,258,366 B1).

Regarding claim 1, Hearst discloses a method comprising specifying an object having first and second intersecting hierarchies (..first group object and second group object; see

abstract); illustrating the object with respect to the first hierarchy (col. 7, lines 6-29); however, Hearst fails to explicitly teach presenting a second intersecting hierarchy selection option to illustrate the object with respect to the second intersecting hierarchy in response to user selection.

Ng teaches presenting a second intersecting hierarchy selection option to illustrate the object with respect to the second intersecting hierarchy in response to user selection (see col. 8, lines 20-59). It would have been obvious to one of an ordinary skill in the art at the time the invention was made to provide presenting a second intersecting hierarchy selection option to illustrate the object with respect to the second intersecting hierarchy in response to user selection as taught by Ng to the interactive interface for specifying searches of Hearst, in order to display management of and selective presentation of tree levels and tree branches in the hierarchy tree of an information system.

Regarding claim 2, Hearst discloses wherein the object is illustrated with to respect to the first intersecting hierarchy as a three-dimensional structure (see col. 5, lines 15-60).

Regarding claim 3, Hearst discloses wherein the first and second hierarchies are determined by an administrator (see col. 8, lines 16-44).

Regarding claim 4, Ng discloses wherein the first and second intersecting hierarchies comprise a plurality of additional objects; wherein the method further comprises presenting context sensitive information for the object and an additional object, the context sensitive information for the additional object comprising an indication of a third hierarchy; and choosing the indication corresponding to the third hierarchy; and in response to choosing: (a) if the first

hierarchy intersects the third hierarchy, illustrating both the object and the; additional object with respect to the third hierarchy; and (b) if the first hierarchy does not intersect the third hierarchy, illustrating only the additional object with respect to the third hierarchy (see col. 4, lines 11-67 and col. 5, lines 15-53).

Regarding claim 5, Ng discloses in response to the specifying (a) displaying additional objects that correspond the object; (b) exposing one or more attributes that correspond to the object; choosing an attribute; and in response to the choosing, filtering the additional objects based on the chosen attribute (see col. 3, lines 40-63 and figure 1A).

Regarding claim 6, Ng discloses selecting the second intersecting hierarchy selection option; and in response to the selecting, illustrating the object with respect to the second intersecting hierarchy (see col. 6, lines 19-60).

Regarding claim 7, Hearst discloses wherein the illustrating further comprises visually morphine from the first intersecting hierarchy to the second intersecting hierarchy (see col. 10, lines 35-67).

Regarding claim 8, Hearst discloses visually morphine from the first intersecting hierarchy to the second intersecting hierarchy, one or more additional objects being illustrated with respect to the first intersecting hierarchy; and the visually morphine comprising simultaneously illustrating at least a portion of both the first and second intersecting hierarchies and graphically pivoting about the object to temporarily show a relationship of the objects with respect to the first and second to intersecting hierarchies (see col. 12, lines 21-54).

Regarding claim 9, Hearst discloses visually morphine from the first intersecting hierarchy to the second is intersecting hierarchy, one or more additional objects being illustrated with respect to the first intersecting hierarchy; and the visually morphine comprising: is overlaying at least a portion of both the first and second intersecting hierarchies simultaneously to temporarily illustrate a relationship of the objects with respect to the first and second intersecting hierarchies (see col. 14, lines 6-67).

Regarding claim 10, Hearst discloses wherein the object is a first object, and the method further comprises displaying a second object that corresponds to the specified first object; selecting the second object; and in response to selecting, illustrating both the first and second objects with respect to the first intersecting hierarchy (see col. 15, lines 6-67).

As claims 11-13 are analyzed as previously discussed with respected to claims 5-7 above.

Claim 14 differs from claim 1 in that "switching from the first hierarchy of information to a second hierarchy of information to present the object within the second hierarchy of information" which read on Ng (see col. 11, lines 35-56).

Regarding claims 15 and 16, Hearst discloses wherein the presenting and the switching are performed using three-dimensional graphical objects; and wherein the switching further comprises gradually turning an image of the first hierarchy of information into the second hierarchy of information, such that at least a portion of both the first and second hierarchies are momentarily visible (see figures 5-9).

As claims 17-21 are analyzed as previously discussed with respected to claims 1-4 and 8-16 above.

Regarding claim 22, Hearst discloses a method comprising presenting a first object and a second object with respect to a first hierarchy of a polyarchy; selecting a second hierarchy of the polyarchy; and in response to the selecting, presenting the first and second objects with respect to the second hierarchy (see col. 14, lines 23-67 and figures 15-17).

Regarding claim 23, Hearst comprising managing the first and second objects with respect to the first and second hierarchies (see col. 16, lines 25-55).

As claims 24-26 are analyzed as previously discussed with respected to claims 1-4 and 8-16 above.

Claim 27 differs from claim 1 in that "the graphical user interface further comprises a fourth area to display the specified object and additional objects that correspond to the specified object, the fourth area facilitating user selection of an additional object so that, upon selection of the additional object, the second area is changed to illustrate the object and the additional object within the current hierarchy" which read on Ng (see col. 3, lines 25-50 and col. 8, lines 20-59).

As claims 30-41 are analyzed as previously discussed with respected to claims 1-4 and 8-16 and 22-27 above.

Response to Amendment

3. Applicant's arguments filed on Oct 16, 2003 have been fully considered but they are not persuasive.

In response to page 18-19 applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Hearst discloses first and second intersecting hierarchies used in combination of Ng's to illustrate the object with respect to the second intersecting hierarchy in response to user selection. One skill in the art would have been obvious to provide presenting a second intersecting hierarchy selection option to illustrate the object with respect to the second intersecting hierarchy in response to user selection as taught by Ng to the interactive interface for specifying searches of Hearst, in order to display management of and selective presentation of tree levels and tree branches in the hierarchy tree of an information system.

At pages 20 and 21 of the Remarks, Applicant argues that the combination of Hearst and Ng do not teach or suggest "intersection hierarchy" and "first and second intersection hierarchy". However, the limitations as claimed set forth to read on "the interactive interface of the present invention allows users to create a search query for a corpus of machine-readable documents, each

of which is associated with at least one category of a category hierarchy. The interactive interface includes a cone tree generation component, a query specification component, a begin search component, and a query generation component. The cone tree generation component generates and displays a cone tree representing the category hierarchy. The cone tree represents each category of the category hierarchy as a node having a selection object for indicating inclusion of the category in a one of a first group, and a second group. Each selection object is responsive to a cursor control device. The query specification component generates and displays a query specification object including a first group object and a second group object. Each group object is responsive to the cursor control device and indicates members of the group. Each group includes a one of a term included within the corpus and a category of the category cone tree. The query generation component generates a query for searching the corpus to find documents that include at least one member of the first group and at least member of the second group." see Hearst col. 7, lines 1-29.

At pages 23 of the Remarks, Applicant argues that the combination of Hearst and Ng do not teach or suggest "presenting a second intersecting hierarchy selection option to illustrate the object with respect to the second intersecting hierarchy in response to user selection". However, the limitations as claimed set forth to read on "Apparatus for navigating through a hierarchy of objects in an information processing system in a computer, the computer having a processor, a display, a keyboard, a pointer control device for the display and a data storage device, an explosion module for exploding a displayed object of the hierarchy in response to a first

characteristic stroke of the pointer control device while the pointer is within the boundary of the displayed object; an implosion module for imploding nodes branching from a displayed object of the hierarchy in response to a second characteristic stroke of the pointer control device while the pointer is within the boundary of the displayed object; and a keystroke module in response to a key stroke for setting the level of further explosion of the object when the displayed object is exploded by the explosion module." see Ng col. 11, lines 7-22.

Allowable Subject Matter

4. Claims 4, 8-9, 29 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 21 is allowable over the prior art of record.

The following is an examiner's statement of reasons for allowance: Applicant has claimed uniquely distinct features in the instant invention which are not found in the prior art either singularly or in combination. They are a method comprising: presenting an object with respect to a first hierarchy of information; switching from the first hierarchy of information to a second hierarchy of information using a visual pivot technique in which the second hierarchy of information is visually pivoted about a pivot axis intersecting the object and the object is presented with respect to the second hierarchy of information; and wherein the first and second hierarchies intersect at the object, the first hierarchy associated a first data relationship of the

object, the second hierarchy associated with a second data relationship of the object, the first data relationship being different than the second data relationship.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (see PTO-892).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response

8. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires to fax a response, (703) 746-7239 may be used for formal communications or (703) 746-7240 for informal or draft communications.

Please label "PROPOSED" or "DRAFT" for informal facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. Sixth Floor (Receptionist).

Inquires

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cao (Kevin) Nguyen whose telephone number is (703) 305-3972. The examiner can normally be reached on Monday-Friday from 8:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Cabeca, can be reached on (703) 308-3116. The fax number for this group is (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

CAO (KEVIN) NGUYEN
PRIMARY EXAMINER
January 8, 2004